



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,031	06/12/2006	Vitali Pavlovich Zubov	P70583USD	9727
136 7590 02/12/2009 JACOBSON HOLMAN PLLC 400 SEVENTH STREET N.W. SUITE 600 WASHINGTON, DC 20004				
EXAMINER THERKORN, ERNEST G				
ART UNIT 1797		PAPER NUMBER		
MAIL DATE 02/12/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/534,031

Applicant(s)

ZUBOV ET AL.

Examiner

Ernest G. Therkmom

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 12-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- _____ Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- _____ Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is no antecedent basis for "organic/inorganic materials." As such, the claim is considered to be indefinite. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, and 4-11 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kosaka (U.S. Patent No. 4,045,353). The claims are considered to read on Kosaka (U.S. Patent No. 4,045,353). However, if a difference exists between the claims and Kosaka (U.S. Patent No. 4,045,353), it would reside in optimizing the elements of Kosaka (U.S. Patent No. 4,045,353). It would have been obvious to optimize the elements of Kosaka (U.S. Patent No. 4,045,353) to enhance separation.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kosaka (U.S. Patent No. 4,045,353) in view of Kirkland (U.S. Patent No. 4,160,728). At best, the claim differs from Kosaka (U.S. Patent No. 4,045,353) in reciting a bimodal

distribution of pore sizes. Kirkland (U.S. Patent No. 4,160,728) (column 2, lines 17-20) discloses that use of bimodal pore sizes results in chromatographs with a wider range of linearity. It would have been obvious to use a bimodal distribution in Kosaka (U.S. Patent No. 4,045,353) because Kirkland (U.S. Patent No. 4,160,728) (column 2, lines 17-20) discloses that use of bimodal pore sizes results in chromatographs with a wider range of linearity.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kosaka (U.S. Patent No. 4,045,353) in view of Mazid (U.S. Patent No. 5,240,601). At best, the claim differs from Kosaka (U.S. Patent No. 4,045,353) in reciting specific functional groups. Mazid (U.S. Patent No. 5,240,601) (column 3, lines 49-59, column 5, lines 52-58, column 6, lines 45-50, and column 7, lines 34-44) discloses that it is desirable to functionalize fluorinated polymers with carboxyl and amino groups to allow for specific substances to be removed. It would have been obvious to use the recited specific functional groups in Kosaka (U.S. Patent No. 4,045,353) because Mazid (U.S. Patent No. 5,240,601) (column 3, lines 49-59, column 5, lines 52-58, column 6, lines 45-50, and column 7, lines 34-44) discloses that it is desirable to functionalize fluorinated polymers with carboxyl and amino groups to allow for specific substances to be removed.

Claims 1, 2, and 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Kapoustine (E.P. 1,020,220) or Kapustin (WO 00/41807) in view of Mazid (U.S. Patent No. 5,240,601). At best, the claims differ from either Kapoustine (E.P. 1,020,220) or Kapustin (WO 00/41807) in reciting use of functional groups. Mazid (U.S.

Patent No. 5,240,601) (column 3, lines 49-59, column 5, lines 52-58, column 6, lines 45-50, and column 7, lines 34-44) discloses that it is desirable to functionalize fluorinated polymers with carboxyl and amino groups to allow for specific substances to be removed. It would have been obvious to use the recited specific functional groups in either Kapoustine (E.P. 1,020,220) or Kapustin (WO 00/41807) because Mazid (U.S. Patent No. 5,240,601) (column 3, lines 49-59, column 5, lines 52-58, column 6, lines 45-50, and column 7, lines 34-44) discloses that it is desirable to functionalize fluorinated polymers with carboxyl and amino groups to allow for specific substances to be removed.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Kapoustine (E.P. 1,020,220) or Kapustin (WO 00/41807) in view of Mazid (U.S. Patent No. 5,240,601) as applied to claims 1, 2, and 4-11 above, and further in view of Kirkland (U.S. Patent No. 4,160,728). At best, the claim differs from either Kapoustine (E.P. 1,020,220) or Kapustin (WO 00/41807) in view of Mazid (U.S. Patent No. 5,240,601) in reciting a bimodal distribution of pore sizes. Kirkland (U.S. Patent No. 4,160,728) (column 2, lines 17-20) discloses that use of bimodal pore sizes results in chromatographs with a wider range of linearity. It would have been obvious to use a bimodal distribution in either Kapoustine (E.P. 1,020,220) or Kapustin (WO 00/41807) in view of Mazid (U.S. Patent No. 5,240,601) because Kirkland (U.S. Patent No. 4,160,728) (column 2, lines 17-20) discloses that use of bimodal pore sizes results in chromatographs with a wider range of linearity.

The remarks urge that the restriction is improper because the inventions belong to one inventive concept. However, as noted in the instant office action claim 1 is either obvious or anticipated. Accordingly, the special technical feature linking the inventions does not provide a contribution over the prior art, and no single inventive concept exists. Therefore, restriction is appropriate. Accordingly, the restriction and election of species have been reconsidered, deemed proper, and made final.

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (571) 272-1149. The official fax number is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ernest G. Therkorn/
Ernest G. Therkorn
Primary Examiner
Art Unit 1797

EGT
February 11, 2009